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| AKERMAN SENTERFITT P. O. BOX 3188 WEST PALM BEACH, FL 33402-3188 | | | VO, LILIAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2195 | |

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,439

Applicant(s)

FLORES ET AL.

Examiner

Lilian Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 –17 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 8 – 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hluchyj et al. (US 5,488,609, hereinafter Hluchyj).

4. Regarding **claim 1**, Hluchyj discloses a method for providing dynamic workload transition in an application server for an e-business system (abstract), comprising:

detecting an overload condition in the e-business system (abstract, col. 5, lines 25 – 30);

causing a first reallocation of at least a portion of system resources allocated to a first set of workload tasks in the e-business system from said first set of workload tasks to a second set of workload tasks in response to detecting the overload condition, wherein processing said second set of workload tasks requires less system resources than processing said first set of workload tasks (col. 4, lines 27 – 39: partially retrieve allocated resources from existing connections, for example, temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection

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management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the step of if the overload condition subsequently abates and if said first set of workload tasks require processing, performing a second reallocation of system resources to said first set of workload tasks, Hluchyj discloses that the source of each connection, whose rate is subject to dynamic adjustment, examines the path supporting the connection periodically or based on an event trigger such that if all the links along the path are unmarked, the rate of the connection is increased from its previously agreed level to the requested level, provided the previously agreed level is lower than the requested and that the dynamic rate adjustment scheme may be implemented based on available capacity (col. 5, lines 1 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that the dynamic rate adjustment such as the increased from the lower level to the higher level shows the step of reallocating the resource as it become available to fulfill the request as necessary when the situation allowed to enhance the quality of service (col. 5, lines 4 – 9).

5. Regarding **claim 2**, Hluchyj discloses the detecting step further comprises monitoring system parameters in the e-business system (col. 4, lines 35 – 59); and analyzing said monitored system parameters to determine when said overload condition occurs in the e-business system (col. 4, lines 35 – 59: a link may be marked when it is overloaded).

6. Regarding **claim 8**, Hluchyj discloses a method for providing dynamic workload transition in an application server for an e-business system, comprising:

processing a workload assigned to a workload driver (abstract, col. 5, lines 25 – 31);
monitoring system resources to detect an overload condition while processing said workload (abstract, col. 5, lines 25 – 30);

allocating processing resources to a lighter workload when said workload driver detects a system overload condition caused by said processed workload during said monitoring step (col. 4, lines 27 – 39: temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the step of allocating resource to the first workload tasks if it requires processing when there is adequate resources become available, Hluchyj discloses that the source of each connection, whose rate is subject to dynamic adjustment, examines the path supporting the connection periodically or based on an event trigger such that if all the links along the path are unmarked, the rate of the connection is increased from its previously agreed level to the requested level, provided the previously agreed level is lower than the requested and that the dynamic rate adjustment scheme may be implemented based on available capacity (col. 5, lines 1 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that the dynamic rate adjustment such as the increased from the lower level to the higher level shows the step of allocating of the adequate resource as it become available to fulfill the request.

7. Regarding **claim 9**, Hluchyj discloses a system for providing dynamic workload transition in an e-business system, comprising:

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an application server for receiving work requests and for processing workloads identified by said work requests (abstract, col. 5, lines 25 – 31);

a workload driver for handling workload management of said application server, said handling comprising diminishing processing of a currently processed workload which causes an overload condition, and initiating the processing of a lighter workload, said lighter workload having a lighter load than said currently processed workload (col. 4, lines 27 – 39: temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the limitation where a status driver for reporting system data to said workload driver, said system data providing information regarding the existence of said overload condition, Hluchyj discloses that a node is responsible for monitoring the link's status and that dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation (col. 4, lines 35 – 59). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that there is a communication between the monitoring status and the workload management because of the provided information regarding the existence of the overload condition.

8. **Claims 10 – 11 and 17** are rejected on the same ground as stated in claims 1 – 2 and 8 above.

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9. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hluchyj et al. (US 5,488,609, hereinafter Hluchyj) as applied to claim 1 above, and in view of Culbert (US 5,838,968).

10. Regarding **claim 3**, Hluchyj discloses the monitoring of the resource utilization but did not clearly disclose that the monitored system parameters comprise CPU utilization, disk I/O and memory utilization. Nevertheless Culbert discloses of the monitoring system parameters including CPU utilization, disk I/O and memory utilization (col. 5, lines 21 – 40, col. 8, lines 1 – 18, col. 12, lines 51 – 63). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate Culbert's teaching to Hluchyj so that system performance can be monitored as resource utilization are dynamically managed.

11. **Claim 12** is rejected on the same ground as stated in claim 3 above.

12. Claims 4 – 7 and 13 - 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culbert (US 5,838,968) in view of Ishidera (US Pat. Application Publication 2002/0040442).

13. Regarding **claim 4**, Culbert discloses a method for providing dynamic workload transition in an application server for an e-business system (abstract), comprising:

receiving a first work request (col. 9, lines 15 – 23);

determining the workload of said first work request (col. 9, lines 15 – 23, 40 – 46: tasks requests more resources);

comparing said workload of said first work request to available system resources to determine if performing said first work request is capable of causing a system overload condition (col. 9, lines 15 – 46: tasks have difficulty gaining access to needed resources if the resource becomes more constrained).

Culbert discloses the step of retrieving resource from an existing task with degradation where a task is asked to give up some of its resources and move to a lower run level when resource becomes constrained (col. 9, lines 15 – 46), which then requiring less resource. Culbert however did not disclose the step of transitioning to a second lighter work request to prevent the system overload condition. Nevertheless, the concept of preventing the system overload condition by switching to perform a lighter load or assigning requests/tasks to a lighter load is considered well known in the art for balancing workload. Additionally, the concept can be seen in Ishidera's disclosure in which when the determination result indicative of the operating environment requiring power saving based on the operating status on the battery, the switching unit switches the process to a process of a light load processing unit and executes an animation displaying process of relatively light load on the CPU (page 3, paragraph 33). It would have been obvious for one of ordinary skill in the art, at the time the invention was made, to incorporate the concept from Ishidera's to Culbert so that quality of service can still be maintained at the same time while efficiently managing resource to avoid the overload condition.

14. Regarding **claim 5**, Culbert discloses the analyzing said monitored system parameters to determine when the overload condition occurs (fig. 3, col. 8, lines 24 – 59: update resource measurement. Col. 9, lines 15 – 46: tasks have difficulty gaining access to needed resource when resource become constrained.)

15. Regarding **claim 6**, Culbert discloses the monitoring system parameters including CPU utilization, disk I/O and memory utilization (col. 5, lines 21 – 40, col. 8, lines 1 – 18, col. 12, lines 51 – 63).

16. Regarding **claim 7**, Culbert discloses the step of reporting the system parameters to a workload driver (col. 10, lines 10 – 67: resource manager gets the update of the tasks resource utilization record).

17. **Claims 13 – 16** are rejected on the same ground as stated in claims 4 – 7 above.

Response to Arguments

18. Applicant's arguments filed 2/22/05 have been fully considered but they are not persuasive for the reasons set forth below.

19. In response to applicant's arguments (page 10, last paragraph, line 3 and page 11, 2nd paragraph), the recitation application server has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

20. On page 10, last paragraph, applicant argues in essence that Hluchyj does not address the allocation of application resources such as the CPU, disk, and memory needed for processing workload tasks. This limitation is recited in claim 3, in which Culbert was used in the rejection to address such features. Therefore, applicant cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

21. With respect to applicant's argument (page 11, 1st paragraph) that Hluchyj does not deal with application workloads and, accordingly cannot provide for an adjustment of such application workloads, the examiner disagrees. Hluchyj deals with connection resources workloads, which inherently managed by an application. Therefore, it is proper to conclude that Hluchyj provides the adjustment of such applicant workload.

22. With respect to applicant's remark that the rejection lacks of how to modify Hluchyj to achieve applicant's invention (page 11, last paragraph, last sentence and page 12, 1st paragraph), applicant to note that Hluchyj discloses such teachings which is similar to the concept of resource allocation as claimed. Therefore, Hluchyj's teaching can be related to applicant's invention, thus does not need to be modified.

23. In response to applicant's argument (page 13, 3rd paragraph) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant

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relies (i.e., Culbert does not provide dynamic determination of which task is to be given scarce system resources or cannot restore the system to an optimal operating state when a system encounters such an overload) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

24. In response to applicant's arguments (page 13, 3rd – 4th paragraph) against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

25. In response to applicant's argument (page 14, 2nd paragraph, last sentence and page 15, 1st paragraph) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for the rejection is found in the knowledge generally available to one of ordinary skill in the art.

26. In response to applicant's argument (page 15, 1st paragraph) that Culbert in view of Ishidera does not provide a basis for rejecting the claims 4, 13 and 17, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure

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of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2195

lv
May 9, 2005


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100